1.10 part I Combinations Homework

[complete on separate paper]

Find the domain.

(2.) $f(x) = 2(x + 5)$

4. $g(x) = \dfrac{2}{x + 5}$

(6.) $f(x) = x^2 + x - 12$

8. $g(x) = \dfrac{2}{x^2 + x - 12}$

(10.) $f(x) = \dfrac{1}{x + 8} + \dfrac{3}{x - 10}$

(14.) $h(x) = \dfrac{5}{\frac{4}{x} - 1}$

16. $f(x) = \dfrac{1}{\frac{4}{x - 2} - 3}$

(18.) $f(x) = \sqrt{x + 2}$

Find $f+g, f-g, fg, \frac{f}{g}$. Determine the domain for each.

31. $f(x) = 2x + 3, g(x) = x - 1$

(32.) $f(x) = 3x - 4, g(x) = x + 2$

33. $f(x) = x - 5, g(x) = 3x^2$

34. $f(x) = x - 6, g(x) = 5x^2$

35. $f(x) = 2x^2 - x - 3, g(x) = x + 1$

(36.) $f(x) = 6x^2 - x - 1, g(x) = x - 1$

37. $f(x) = 3 - x^2, g(x) = x^2 + 2x - 15$

(38.) $f(x) = 5 - x^2, g(x) = x^2 + 4x - 12$

39. $f(x) = \sqrt{x}, g(x) = x - 4$

(40.) $f(x) = \sqrt{x}, g(x) = x - 5$

41. $f(x) = 2 + \dfrac{1}{x}, g(x) = \dfrac{1}{x}$

42. $f(x) = 6 - \dfrac{1}{x}, g(x) = \dfrac{1}{x}$

43. $f(x) = \dfrac{5x + 1}{x^2 - 9}, g(x) = \dfrac{4x - 2}{x^2 - 9}$

(44.) $f(x) = \dfrac{3x + 1}{x^2 - 25}, g(x) = \dfrac{2x - 4}{x^2 - 25}$

45. $f(x) = \sqrt{x + 4}, g(x) = \sqrt{x - 1}$

(46.) $f(x) = \sqrt{x + 6}, g(x) = \sqrt{x - 3}$

47. $f(x) = \sqrt{x - 2}, g(x) = \sqrt{2 - x}$

48. $f(x) = \sqrt{x - 5}, g(x) = \sqrt{5 - x}$

Minimum: Circled 11 problems. Practice what you need.